



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,753	03/25/2004	Stephen Yue	60,130-1874/03MRA0392	5869

26096 7590 06/07/2006

CARLSON, GASKEY & OLDS, P.C.
400 WEST MAPLE ROAD
SUITE 350
BIRMINGHAM, MI 48009

EXAMINER

AFZALI, SARANG

ART UNIT	PAPER NUMBER
----------	--------------

3729

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

88

Office Action Summary	Application No. 10/808,753	Applicant(s) YUE ET AL.	
	Examiner Sarang Afzali	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed 3/15/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/25/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The applicant's amendment filed on 3/15/2006 has been fully considered and made of record.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1, 7, 15, 17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (US 6,869,091).

As applied to claim 1, Anderson et al. teach a method for forming a suspension component (such as a stabilizer bar) wherein powdered material is applied to the exterior surface of the suspension component at the points of high stress by spraying (col. 1, lines 56-60, Fig. 7).

As applied to claims 7 and 15, Anderson et al. teach that step of forming can be done prior or subsequent to the step of thermal spraying (col. 1, lines 59-60).

As applied to claims 17 and 18, Anderson et al. teach that the thickened portion of the bar (suspension component 10 with sprayed powdered portioned 22, Fig. 7) has

Art Unit: 3729

a first diameter larger than a second diameter of another portion without the powder material (22, Fig. 7) and that this thickened portion is adjacent to another unthickened portion (Fig. 7).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-6, and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Ohno et al. (US 4,526,628).

As applied to claims 2 and 8, Anderson et al. teach the claimed invention with the exception of the shot peening step. However, Ohno et al. teaches a method of manufacturing a car stabilizer bar comprising a shot peening step subsequent to the coating step (Fig. 4) in order to improve its fatigue durability (col. 4, lines 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the shot peening step in light of Ohno et al. teaching to provide an effective means of improving the fatigue durability of the suspension component (stabilizer member).

As applied to claim 3, Anderson et al. teach the claimed invention with the exception of the heat treating step occurring between the thermal spraying and shot

Art Unit: 3729

peening steps. However, Ohno et al. teach a heat treating step (annealing step 4, Fig. 4) that occurs between thermal spraying (step 6, Fig. 4) and shot peening (step 5, Fig. 4) to accelerate age hardening of the material (col. 3, lines 65-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the heat treating step as taught by Ohno et al. to provide an effective means of elevating the yield point of the material without reducing the tensile strength (col. 3, lines 66-67).

As applied to claim 4, Anderson teach the invention cited with the exception of the forming step between thermal spraying and heating treating steps. However, Ohno et al. teaches a forming step (step 3, Fig. 4) occurring between the thermal spraying (coating step 6, Fig. 4) and heat treating step (step 4, Fig. 4) in order to provide a desired shape of the material (col. 3, line 59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the forming step as taught by Ohno et al. to bend the material into a desired shape.

As applied to claim 5, Anderson et al. teach the invention cited with the exception of the forming step between thermal spraying and shot peening steps. However, Ohno et al. teaches a forming step (step 3, Fig. 4) occurring between the thermal spraying (coating step 6, Fig. 4) and shot peening (step 5, Fig. 4) in order to provide a desired shape of the material (col. 3, line 59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the forming step as taught by Ohno et al. to bend the material into a desired shape.

As applied to claim 6, Anderson et al. teach the invention cited with the exception of the heat treating prior to the forming step. However, Ohno et al. teach a heat treating step (quenching step 2, Fig. 4) prior to forming (bending step 3, Fig. 4) to produce a martensite structure with good toughness in the material and thus improve the surface texture of and facilitate bending of the material (col. 3, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the pre-heat treating step as taught by Ohno et al. to facilitate the forming and bending of the material.

As applied to claim 9, Anderson et al. teach the invention cited with the exception of the pre-heating step. However, Ohno et al. teaches a pre-heating step (quenching step 2, Fig. 4) prior to the thermal spraying (coating step 6, Fig. 4) to produce a martensite structure with good toughness in the material and thus improve the surface texture of and facilitate bending of the material (col. 3, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the pre-heat treating step as taught by Ohno et al. to facilitate the forming and bending of the material.

As applied to claim 10, Anderson et al. teach the invention cited with the exception of the heat treating the bar between the forming and thermal spraying steps. However, Ohno et al. teach a heat treating step (annealing step 4, Fig. 4) that occurs between forming (bending step 3, Fig. 3) and thermal spraying (coating step 6, Fig. 3) to accelerate age hardening of the material (col. 3, lines 65-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have

provided Anderson et al. with the heat treating step as taught by Ohno et al. to provide an effective means of elevating the yield point of the material without reducing the tensile strength (col. 3, lines 66-67).

As applied to claim 11, Anderson et al. teach the invention cited with the exception of the shot peening the bar between the forming and thermal spraying steps. However, Ohno et al. teach a shot peening step (step 5, Fig. 3) that occurs between forming (bending step 3, Fig. 3) and thermal spraying (coating step 6, Fig. 3) in order to improve its fatigue durability (col. 4, lines 3-4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the shot peening step in light of Ohno et al. teaching to provide an effective means of improving the fatigue durability of the stabilizer member.

As applied to claim 12, Anderson et al. teach the invention cited with the exception of the heat treating the bar between the shot peening and forming steps. However, Ohno et al. teach a heat treating step (annealing step 4, Fig. 4) that occurs between forming (bending step 3, Fig. 3) and shot peening (step 5, Fig. 3) to accelerate age hardening of the material (col. 3, lines 65-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the heat treating step as taught by Ohno et al. to provide an effective means of elevating the yield point of the material without reducing the tensile strength (col. 3, lines 66-67).

As applied to claim 13, Anderson et al. teach the invention cited with the exception of the heat treating prior to the thermal spraying and shot peening steps.

Art Unit: 3729

However, Ohno et al. teaches a heat treating step (quenching step 2, Fig. 4) prior to thermal spraying (coating step 6, Fig. 4) and shot peening (step 5, Fig. 4) to produce a martensite structure with good toughness in the material and thus improve the surface texture of and facilitate bending of the material (col. 3, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the pre-heat treating step as taught by Ohno et al. to facilitate the forming and bending of the material.

As applied to claim 14, Anderson et al. teach the invention cited with the exception of the forming the bar prior to the shot peening step. However, Ohno et al. teaches a forming step (step 3, Fig. 4) occurring prior to shot peening step (step 5, Fig. 4) in order to provide a desired shape of the material (col. 3, line 59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Anderson et al. with the forming step as taught by Ohno et al. to bend the material into a desired shape.

Response to Arguments

6. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3729

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarang Afzali whose telephone number is 571-272-8412. The examiner can normally be reached on 7:00-3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3729

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SA

SA

05/30/2006


ERIC COMPTON
PRIMARY EXAMINER